SCURVY

BPK Tutorial Activity - Amber Bedard, Chloe Pretchuk, Jeff Chan, Tracey Ho, Liza Olendzskaya

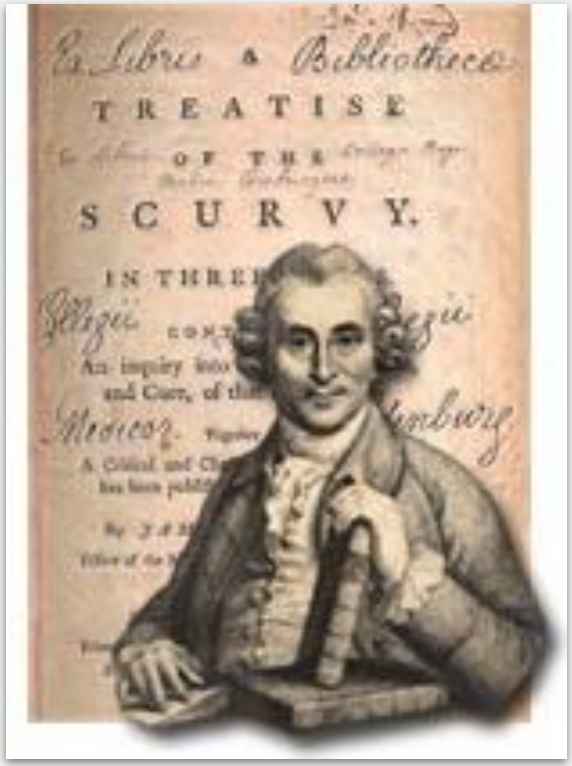
Introduction

Scurvy occurs when the body has a dietary deficiency of vitamin C or ascorbic acid.

Due to the fortification of baby formula and sufficient Vitamin C in many foods, scurvy is uncommon in Western societies.

Early symptoms of scurvy include weakness, fatigue, and sore arms and legs. After about 3 months without treatment, it can lead to decreased red blood cells, gum disease, loosening teeth, and poor wound healing,emotional changes.

Long-term effects of scurvy could be severe jaundice, hemolysis, and Sjoren's syndrome (dry mouth and eyes), edema, oliguria, fever convulsions, and eventually death.



Foods to Avoid

- Alcohol
  - Overconsumption of alcohol extracts Vitamin C from the body
- Diets low in fruits and vegetables
  - As our bodies do not produce Vitamin C, we must rely on our diet to meet our required intake. Vitamin C is found in various fruits and vegetables, therefore, diets low in these food groups are more likely to cause scurvy.

Beneficial foods

- Oranges
- Bell peppers
- Strawberries
- Brussel sprouts
- Broccoli
- Kale

- Potatoes
- Blackcurrants
- Papaya
- Tomatoes
- Kiwifruits
- Guavas
- Snow Peas
- Kidney
- Liver

Why foods with high Vitamin c?

Vitamin C cannot be stored in your body so you need it in your diet everyday.

Vitamin C: recommended 40mg per day

Eating sources of Vitamin C is better raw because cooking it causes it to breaks down from heat.

Vitamin C is important for your health. For example Vitamin C can:

- Lower the risk of cancer and heart disease
- Support immune system of your body and fight viruses and bacteria.

Lifestyle Changes - A New Leaf

- Make sure Vitamin C intake requirements are met within your diet
- Be sure to add fruits, juices, lots of fibres
- Start adding physical activity incrementally
- Add a note recording the total amount of Vitamin C intake for the day
- Consistency is key, but be aware of overdosing or overconsumption of vitamin C
- Taking large quantities of vitamin C supplements may be harmful
- Can cause minor problems, such as nausea, abdominal cramping, and diarrhoea, and more serious problems such as decreased effect of some prescription medications, and kidney stones

Expected outcome following the dietary/lifestyle recommendations

- Vitamin C intake from nutrition is essential
- The human body cannot naturally produce vitamin c, and cannot store it for long periods of time due to digestion and absorption processes
- Therefore, it is crucial that vitamin c is regularly incorporated in our diets - its about balance
- Underlying health issues must be addressed, such as eating disorders, substance abuse, smoking, and alcoholism
- Special consideration to vulnerable populations, such as infants, children, and the elderly
- **Once addressed, most people begin to recover from scurvy fairly quickly after starting treatment. You should see an improvement in some symptoms within a day or two of treatment, and a couple of weeks for full recovery**
- The reversal of more serious health implications as a result of vitamin c deficiency may not fully reverse (i.e., tooth loss, organ failure, complications from a coma, etc.)

Summary & Wrap Up

- Scurvy is a disease caused by severe and chronic vitamin C (ascorbic acid) deficiency
- Good sources of dietary vitamin C include citrus fruits and green vegetables
- Overdosing on vitamin C can cause problems, so never take more than the recommended dose of a vitamin C supplement without your doctor's knowledge and approval

References

Department of Health & Human Services. (2012, July 31). Scurvy. Retrieved November 9, 2020, from https://www.betterhealth.vic.gov.au/health/healthyliving/scurvy

Government of Canada. (2019). Percent daily value. Retrieved from https://www.canada.ca/en/health-canada/services/understanding-food-labels/percent-daily-value.html.

Mapp S J, Coughlin P B 2006, 'Scurvy in an otherwise well young man', *Medical Journal of Australia*, vol. 185, no. 6, pp. 331–332

National Health Services. (2020). Vitamin C: Vitamins and minerals. Retrieved from https://www.nhs.uk/conditions/vitamins-and-minerals/vitamin-c/.

Scurvy, Health Encyclopaedia, NHS Direct, UK. Retrieved from https://www.nhs.uk/conditions/scurvy/.

Tredoux, T. (2020). Essential vitamin 6 - Vitamin C. Retrieved from https://tracytredoux.com/journal-posts/2018/8/2/vitamin-c.

Woods, M. (2016). Health Library: Vitamin C. Retrieved from https://www.winchesterhospital.org/health-library/article?id=14069.

Thank you! Questions?